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Calendula Powder

Product name: Calendula Powder (Concentrated Marigold Flower Extract 10:1)

INCI name: Calendula Officinalis Flower Extract

CAS: 84776-23-8

Botanical name: Calendula Officinalis Flower

Synonyms: Marigold, Pot Marigold, Common Marigold, Garden Marigold, Gold bloom, Holligold, Mary Bud, Ruddles, Neven, Nevenovo cveće, Žutelj, Prstenčac, Zimorod, Ognjac, Vrtelni neven

Product quality: Concentrated at a **10:1 ratio**, meaning one part of the extract corresponds to ten parts of raw marigold flower, emphasizing high strength and potency

Chemical classification: Botanical extract / Phytochemical complex

Functional category: Skin conditioning agent ~ Soothing, Anti-inflammatory, Epithelializing agent

Description: Calendula Powder is a highly valued plant raw material in the cosmetics industry, renowned for its pronounced soothing, restoring, and protective properties. It is obtained through the extraction of dried flowers of the *Calendula officinalis* plant. In cosmetology, marigold extract is used for its ability to reduce irritation, soothe sensitive and reactive skin, stimulate epithelization, and contribute to the restoration of a compromised skin barrier. Thanks to its mildness and high tolerability, it is recommended for use in preparations targeting delicate and sensitive skin regions, including the eye area, as well as in baby cosmetics and products for skin prone to inflammation, redness, and flaking. Its presence in a formulation fosters an overall sense of skin calm and can diminish subjective feelings of discomfort, such as tightness or stinging. It is suitable for diverse product categories—ranging from toners and serums to creams, milks, gels, and balms—and is especially prized in regenerative care, anti-inflammatory products, and dermocosmetics. Its compatibility with a wide spectrum of plant extracts and dermioactive substances renders it ideal

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for synergistic formulations, while its powder form enables effortless dispersion in aqueous phases without requiring heat. In the final product, marigold contributes a gentle sensory profile, does not dominantly alter the formulation's color or odor, and integrates smoothly into natural, botanical, and dermatologically oriented cosmetic systems.

Bioactive compounds: Concentrated marigold extract contains a rich spectrum of bioactive compounds that jointly contribute to its soothing, regenerative, and protective properties: Triterpenic saponins: Act protectively and reparatively on the skin's surface layer, supporting epidermis regeneration and irritation relief. Flavonoids: Present in high proportions, they contribute to antioxidative stability and defend against oxidative stress triggered by UV radiation and environmental pollutants. Carotenoids: Pigment compounds that protect the skin against photo-oxidative damage while enhancing complexion and visual skin quality. Phenolic acids (including chlorogenic and caffeic acids): Contribute additional antioxidant and soothing activity. Phytosterols: Stabilize the skin's lipid barrier and participate in maintaining its elasticity. Coumarins: Offer a mildly refreshing and purifying effect, particularly valuable in skin refreshing and toning treatments.

Benefits

- Soothes irritated and inflamed skin
- Stimulates the regeneration of damaged epidermis
- Strengthens the natural barrier function of the skin
- Protects skin from oxidative stress and external factors
- Assists in restoring dry, chapped, and weakened skin
- Suitable for caring for sensitive regions, including the eye area

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Usage instructions

Calendula Powder is utilized in cosmetic formulations aimed at soothing, regenerating, and protecting the skin—particularly for sensitive, irritated, or inflamed conditions. Due to its powder format and high water dispersibility, it is most commonly added to the aqueous phase of a formulation at lower temperatures to preserve the stability of its bioactive compounds. The recommended concentration in daily care products such as creams, toners, gels, and emulgel serums ranges from **0.5% to 2%**, ensuring efficient action without the risk of irritation. In rinse-off preparations, such as masks or baths, it can be used at slightly higher concentrations since contact time is shorter. Its high tolerability permits application in formulations dedicated to sensitive regions like the eye area, as well as in baby cosmetics. The extract combines well with other plant ingredients featuring regenerative, moisturizing, or anti-inflammatory properties, thereby enhancing overall product performance. For external use only.

Safety profile

The Cosmetic Ingredient Review (CIR) evaluated the safety of *Calendula officinalis* ingredients—including flower extract, oil, floral water, and powder—used in cosmetic products in a 2017 report. The CIR Expert Panel concluded that ingredients derived from marigold flowers are safe for use in cosmetics, provided they are properly formulated, microbiologically pure, and free of harmful residual solvents, pesticides, or contaminants. The report specifically emphasizes that marigold extracts show no systemic toxicity, phototoxicity, or potential for irritation or sensitization at concentrations conventionally used in dermal products. In the cosmetic industry, marigold extract is most frequently employed at concentrations of **0.5% to 2%**, which is deemed entirely safe for daily use, even on sensitive skin areas. In rinse-off formulations or applications involving brief skin contact (e.g., masks and baths), concentrations may be slightly higher without adverse effects. The CIR did not establish a maximum permitted concentration for topical application, instead recommending that manufacturers ensure extract purity and raw material quality, particularly for botanical inputs also used in phytotherapy. It is also recommended that product labels clearly specify the plant part used to avoid confusion with leaf or stem extracts, which are considered less safe.

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Animal testing: In compliance with current European regulations (Regulation (EC) No 1223/2009 on cosmetic products), the substance has not been tested on animals. The safety assessment of the raw material is based on available toxicological data, scientific literature, and validated alternative testing methods (*in vitro* and *in silico*). *In silico* is a term used for testing and evaluation methods conducted using computer models and simulations rather than living organisms in a laboratory (*in vivo*) or on cell cultures (*in vitro*). This note confirms compliance with the ban on animal testing and serves solely for informational purposes for the further use of the raw material in cosmetic formulations.

GMO: Non-GMO

Vegan: Does not contain components of animal origin

Storage and shelf life: The extract is stable when stored in a dry, cool place protected from light. The shelf life is **2 years**.

Raw material origin: China